

REMARKS

Applicants respectfully request consideration of the subject application as amended herein. This Amendment is submitted in response to the Final Office Action mailed on March 10, 2003. In this Amendment, claims 1, 9, 13, 19, 24, and 29 have been amended.

The Examiner rejected claims 1-3, 5, 7-9, 11 and 13-28 under 35 U.S.C. § 103(a) as being unpatentable over Snow, et al. (U.S. Patent No. 6,185,550), in view of Lee (U.S. Patent No. 5,841,905) and Jamali (U.S. Patent No. 6,243,501). Claims 4 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Snow, et al., in view of Lee and Jamali as applied to claim 1 above, and further in view of Morita, et al., (U.S. Patent No. 5,832,470). Claims 6 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Snow, et al., Lee and Jamila as applied to claims 1 and 9 above, and further in view of Ho, et al., (Decision Combination in Multiple Classifier Systems, IEEE Transactions on Pattern Analysis and Machine Intelligence). Claims 29-32 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mahoney (U.S. Patent No. 5,889,886) in view of Snow, et al.

Snow discloses a method for classifying documents within a class hierarchy. The class hierarchy includes multiple category nodes stored within a tree data structure. Each category node includes a category name and a category definition consisting of defining terms. A document is classified by finding appropriate categories in the class hierarchy. The document is then stored in these categories. If no category is produced by the search, a system administrator is notified.

Contrary to the presently claimed invention, Snow does not teach or suggest analyzing a user approach to placing documents in a directory structure to determine a

document classification profile of the directory structure. In the Final Office Action mailed on March 10, 2003, the Examiner asserts that the class hierarchy of Snow is an equivalent of directories for storing documents and that the category definition of Snow is an equivalent of a document classification profile of the presently claimed invention. However, the category definition in Snow is provided by the user (col. 5, lines 6-31). In the presently claimed invention, in contrast, a document classification profile of a directory structure is not provided by the user. Rather, the presently-claimed invention analyzes the user approach to placing documents within the directory structure, and then uses this analysis to determine the document classification profile of the directory structure. Thus, Snow does not teach or suggest at least the features of the presently claimed invention that are included in the following language of claim 1:

...analyzing a user approach to placing documents within the second directory structure to determine a document classification profile associated with the first directory structure...

Similar language is included in independent claims 9, 13, 19, 24 and 29. Thus, independent claims 1, 9, 13, 19, 24 and 29, and their corresponding dependent claims, are patentable over Snow.

Furthermore, each of the additional references cited by the Examiner that include Lee, Jamali, Morita, Ho, and Mahoney does not teach or suggest at least the features of the presently claimed invention that are lacking in Snow.

Accordingly, the presently claimed invention is patentable over the references cited by the Examiner, taken alone or in combination. Therefore, Applicants respectfully submit that Applicants' invention as claimed in independent claims 1, 9, 13, 19, 24 and 29, and their corresponding dependent claims, is not rendered obvious by the above

references, and respectfully request the withdrawal of the rejection under 35 U.S.C. § 103(a).

In view of the foregoing amendments and remarks, Applicants respectfully submit that the pending claims are in condition for allowance. Applicants respectfully request reconsideration of the application and allowance of the pending claims.

If the Examiner determines the prompt allowance of these claims could be facilitated by a telephone conference, the Examiner is invited to contact Marina Portnova at (408) 720-8300.


Deposit Account Authorization

Authorization is hereby given to charge our Deposit Account No. 02-2666 for any charges that may be due. Furthermore, if an extension is required, then Applicant hereby requests such extension.

Respectfully submitted,

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VERSION OF CLAIMS WITH MARKINGS

1. (Amended) A method for document classification comprising:

using a first directory structure mirroring a second directory structure used by a user for storing documents;

analyzing a user approach to placing documents within the second directory structure to determine a document classification profile associated with the first directory structure;

analyzing textual content and graphical content of a previously unclassified electronic document to determine a textual profile and a graphical profile of the electronic document;

generating a classification of the document based on the textual profile and the graphical profile; and

storing the electronic document in one or more directories within [a] the first directory structure based on the classification of the document and [a] the document classification profile associated with the first directory structure[,

wherein the first directory structure mirrors a second directory structure, and the document classification profile is defined based on prior placement of documents within the second directory structure by a user].

9. (Amended) A software product including a machine-readable medium having stored thereon sequences of instructions, which, when executed by a processor, cause the processor to:

use a first directory structure mirroring a second directory structure used by a user for storing documents;

analyze a user approach to placing documents within the second directory structure to determine a document classification profile associated with the first directory structure;

analyze textual content and graphical content of a previously unclassified electronic document to determine a textual profile and a graphical profile of the electronic document;

generate a classification of the document based on the textual profile and the graphical profile; and

store the electronic document in one or more directories within [a] the first directory structure based on the classification of the document and [a] the document classification profile associated with the first directory structure[,

wherein the first directory structure mirrors a second directory structure, and the document classification profile is defined based on prior placement of documents within the second directory structure by a user].

13. (Amended) A method for document classification comprising:

analyzing a user approach to placing documents in a pre-existing document directory structure to determine a document classification profile of the pre-existing document directory structure[, the document classification profile of the pre-existing document directory structure being based on prior placement of documents within the pre-existing document directory structure by a user];

generating a mirror directory structure based on the pre-existing document directory structure;

receiving a previously unclassified electronic document;

analyzing textual content and graphical content of the electronic document to determine a textual profile and a graphical profile of the electronic document; and

placing the electronic document at a certain storage location in the mirror directory structure based on the document classification profile of the pre-existing document directory structure, the textual profile of the document, and the graphical profile of the document to resemble the user approach [of the user] to placing documents.

19. (Amended) A computer-readable medium having stored thereon sequences of instructions which, when executed by a processor, cause the processor to:

analyze a user approach to placing documents in a pre-existing document directory structure to determine a document classification profile of the pre-existing document directory structure[, the document classification profile of the pre-existing document directory structure being based on prior placement of documents within the pre-existing document directory structure by a user];

generate a mirror directory structure based on the pre-existing document directory structure;

receive a previously unclassified electronic document;

analyze textual content and graphical content of the electronic document to determine a textual profile and a graphical profile of entire electronic document; and

place the electronic document at a certain storage location in the mirror directory structure based on the document classification profile of the pre-existing document

directory structure, the textual profile of the document, and the graphical profile of the document to resemble the user approach [of the user] to placing documents.

24. (Amended) An apparatus comprising:

means for analyzing a user approach to placing documents in a pre-existing document directory structure to determine document classification profile of the pre-existing document directory structure[, the document classification profile of the pre-existing document directory structure being based on prior placement of documents within the pre-existing document directory structure by a user];

means for generating a mirror directory structure based on the pre-existing document directory structure;

means for receiving a previously unclassified electronic document;

means for analyzing textual content and graphical content of the electronic document to determine a textual profile and a graphical profile of the electronic document; and

means for placing the electronic document at a certain storage location in the mirror directory structure based on the document classification profile of the pre-existing document directory structure, the textual profile of the document, and the graphical profile of the document to resemble the user approach [of the user] to placing documents.

29. (Amended) A document processing system comprising:

a document scanning device;

a document storage device coupled to the document scanning device, wherein the document storage device is organized as a document directory structure having multiple

directories, and further wherein the document storage device has a mirror directory structure having multiple directories organized based on the document directory structure; and

a processor coupled to the document scanning device and to the document storage device, wherein the processor is to analyze a user approach to placing documents in the document directory structure to determine a document classification profile of the document directory structure, to analyze content of a document scanned by the document scanning device, to determine a directory in the mirror directory structure, in which the document will be placed, based on the analysis of document content and [a] the document classification profile of the document directory structure[, the document classification profile being defined based on prior placement of documents within the document directory structure by a user], and to store the document in the directory in the mirror directory structure to resemble the user approach to placing documents.